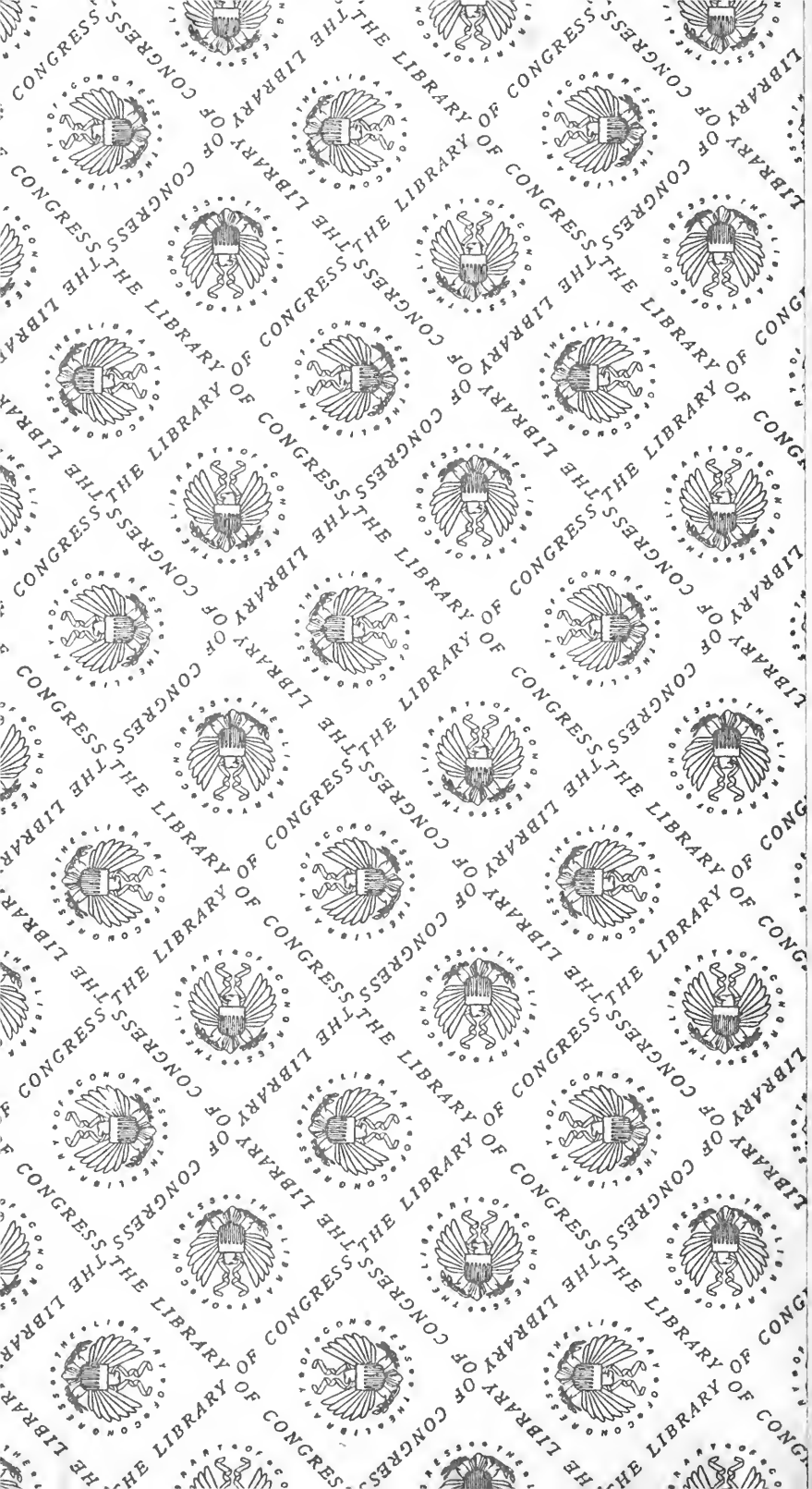
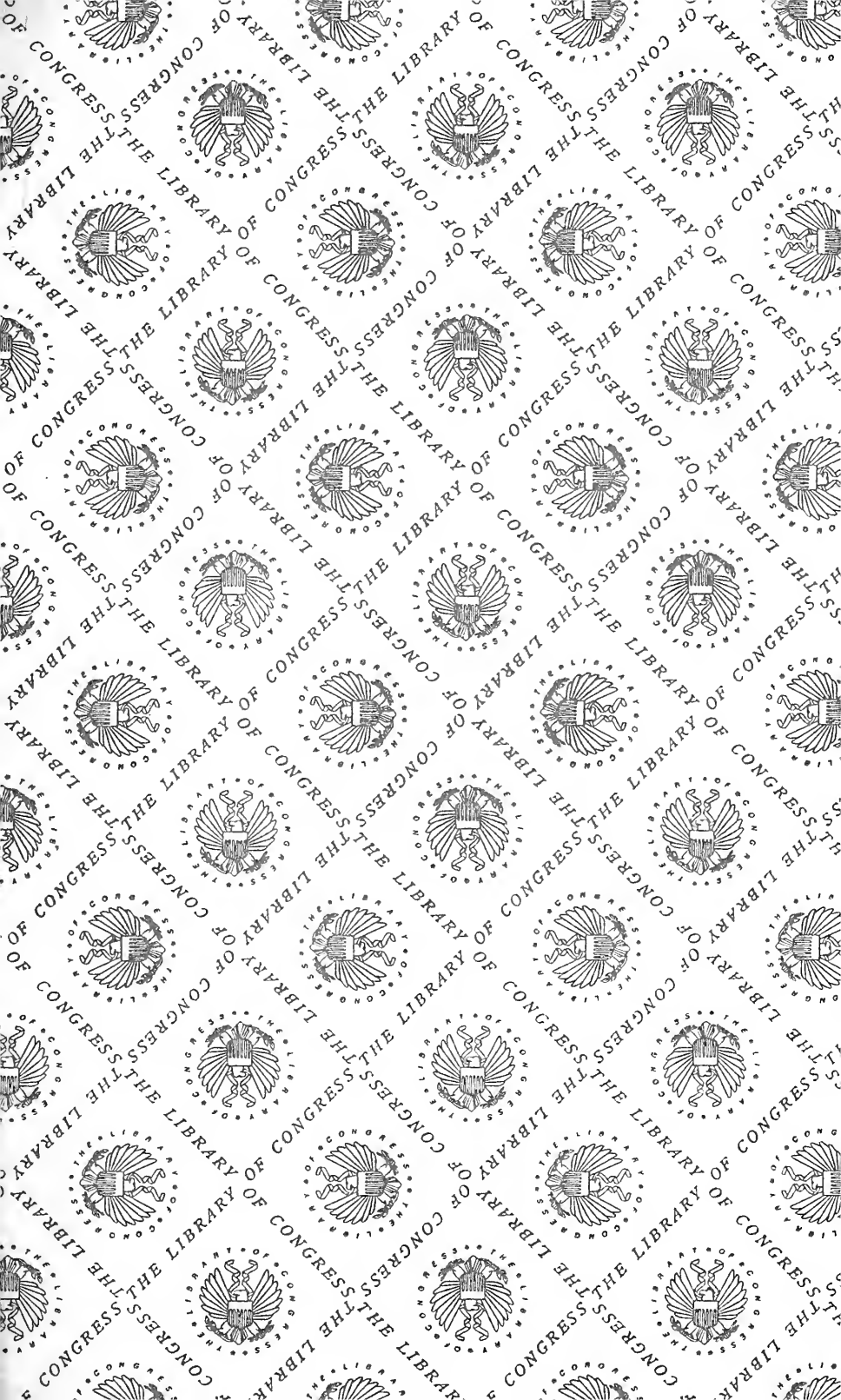


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ADDRESS

ON

FEMALE EDUCATION,

READ AT THE

Annual Commencement of the Brooklyn Heights Seminary,

BY

ALONZO GRAY,
PRINCIPAL OF THE INSTITUTION.

PUBLISHED BY REQUEST OF THE BOARD OF VISITORS.

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A D D R E S S .

YOUNG LADIES,

In completing the duties of the year, and the services of this occasion, allow me to suggest to you and to our friends here present, a few thoughts connected with the *objects* which this Institution attempts to accomplish, with the *means* which are employed, and the *obstacles* which are to be encountered.

School education is only one branch, although a most important one, of human culture. We may, therefore, specify what are not, as well as what are its main objects.

We do not include, as a direct object of school study, the *culinary art*. This most important branch of female education must be left to the mothers. It is to be expected that an art so venerable, so universal, so necessary to the well-being of all civilized communities, will be made a prominent subject of study; that those who are to preside at the family board, will be carefully taught this art, and become skilled in whatever pertains to its successful practice. The comfort, health, and thrift of the family, depend more upon this than upon all the knowledge acquired in the schools.

If there is any deficiency in this respect, in our domestic arrangements, then I would suggest, that this is a department of effort in which the ladies should take a leading and active part; for here their rights will be cheerfully accorded to them by the other sex; they may form societies, if they will, and

bring all their eloquent speakers to the task of reform, without the risk of stepping from their appropriate *sphere*.

But if the practice of this art, and it is eminently a practical art, is eschewed by the educated and refined, and left to the less favored and ignorant classes, then certainly there should be established *culinary technic schools*, furnished with suitable professors and aids, from which our cooks and housekeepers may graduate, before entering upon a profession, the correct practice of which is more vital to the health and life of society, than that of medicine or law; and in which, quackery is the more dangerous, because it is more universal. The influence of such institutions would infuse new life into the social system; family quarrels, and nervous headaches would well nigh cease, and divorces would become less and less frequent, inasmuch as these and other forms of social discord may as frequently be traced to indigestion, as to any want of sympathy, or any special defect of moral principle. The *art of making good bread* has more to do with the peace of the world than all the arts of diplomacy.

Although we do not directly teach this art in the schools, yet, many of the branches of study, especially that of chemistry, are so intimately connected with the successful practice of it, that the teacher may aid the mother by instilling correct views of its importance, and by giving prominence to those sciences upon which the art is based. The education of young ladies ought certainly to be so conducted, that the higher their attainments in science, the better their preparation to discharge the duties of the household, and to fill the honorable station which God has assigned them at the head of the family.

Physical Culture is not the specific object of school education; it is rather incidental. This much neglected branch *should* form a regular and distinct department of school training, not only because a well-developed and gracefully proportioned form is the highest style of physical beauty, but also because the highest intellectual and moral culture cannot be attained without it. And, what is of still greater importance to the welfare of the race, they who are to give physical constitution to coming generations, ought certainly to possess the

most perfect form of physical power and grace. The natural tendency of city life, its luxuries and its indolence, is to physical degeneracy; and unless special means are used to counteract this tendency by appropriate physical training, the higher classes will continue to degenerate, and the strength and power of cities will continue to be derived, as they always have been, from an influx of more vigorous stocks from the laboring classes.

It must be obvious, I think, to the observation of any one who has passed the age of forty years, that the young men and women in our cities are generally smaller in stature than their fathers and mothers were. There is an obvious slimness of form, a precocious maturity, which would astonish their great-grandfathers. If those stately and majestic forms were to revisit the earth now, they would not know their own progeny. In order to remedy this tendency to physical debility, much can and must be done in the schools by means of well ventilated rooms, by suitable seats, and attention to the position of the body during the hours of study, by calisthenics and other exercises. Much more may be accomplished by a judicious system of training out of school, by careful attention to diet, and by imposing proper restraints upon too excessive, irregular, and unseasonable physical exertion.

It is not the design of school education to fit young ladies for *public* and *professional* life. In this respect the education of girls, in its methods and motives, is somewhat different from that of boys. The latter in most cases are expected to be fitted for the discharge of public and professional duties.

There is one profession, however, that of the teacher, which is not only honorable and suitable for ladies, but for which they are especially fitted. This is a department of labor, broad enough and of sufficient magnitude to require and exercise the most exalted powers. The female mind, in many respects, is better adapted to the training of the young, than that of the other sex, and hence its education should be conducted with special reference to this important service. As females are the natural teachers of the young; as they are by their position, character, and influence, to lay the foundations

of society, the purest and holiest motives are here presented to them to strive after, and to attain the highest state of physical, intellectual and moral culture. By this means their influence upon the character, the opinions and the destinies of the race, will be more centrally, universally and beneficently felt, than if they were to accompany the other sex into the arena of professional and political strife. The right to be the teachers of the race ought to satisfy the aspirations of angelic natures. The influence of woman, like the forces of nature, will thus be silent and universal, commencing at the fountain of being, and underlying and pervading all social, civil and political institutions.

The *special* object of school education is to secure what may be designated by the term *culture*, and this includes culture of the *intellect*, the *heart* and the *manners*.

Culture of the *intellect* implies a state of the intellectual faculty, in which the mind is capable of perceiving truth with clearness, of holding subjects before it with firmness, of tracing relations and causes, and making deductions with rapidity and accuracy. Intellectual culture implies not simply a memory filled with facts and principles, but one possessed with the power of recalling and applying its knowledge. It requires not an imagination filled with beautiful images conceived by others, but one so quickened and disciplined that it shall be able to select, combine, and thus create new images and beauties of its own. It demands that the understanding be not only furnished with the judgments and opinions of others, but so disciplined that the reasoning faculty shall be enabled to make its decisions and form its opinions by its own inherent and independent power.

The culture of the *heart* relates primarily to the subjection of the passions and affections, the will itself to the authority of the conscience, the instinctive and impulsive to the government of the moral powers. Obedience to the right as opposed to the expedient; *obedience*, not merely to external rules of conduct, but to the decisions of the judgment and the conscience; thus conducing to perfect integrity and truthfulness of character, thus securing activity and largeness of soul, with delicacy and refinement of sentiment, thus impart-

ing a quickened and refined sensibility, without inducing a sickly and effeminate sentimentality. Perfect culture of the heart implies that the conscience be rectified and made active under the teachings of the Spirit and word of God.

Culture of the *manners* refers mainly to the outward expression, or to the modes in which the various affections of the mind are represented. True culture of manners requires that the outward expression be a true index of the inward feeling. This is a natural law, we read the character through the outward action. This relation should never be violated, and, if the intellect and the heart are rightly disciplined, graceful manners flow out spontaneously, and become correct representatives of the affections of the soul. Simplicity of character will be indicated by simplicity of manners; intellectual and moral graces will be represented by a natural and graceful expression; refinement of feeling will be exhibited by appropriate outward action. If the heart is right, the manners can rarely fail to be graceful and agreeable.

There may be cases of an unfortunate physical form or natural awkwardness, which will not easily conform to the rules of graceful attitudes, whatever be the internal affection or the external training, but such cases are exceptions to the general rule. What we mean by culture of the manners includes not simply or principally an outward graceful expression, but an expression proceeding from, and a true index of the internal affections of the mind.

This view does not require that every feeling should have expression, for if the mental state is wrong, it ought not to be represented at all. The doctrine that we should always express what we feel, is false, both in philosophy and religion. There is obviously a broad distinction between expressing *all* that we feel, and of making what we do express a true index of internal experience. There may be graceful attitudes and expressions which have at the time no corresponding affection. This is often characterized by the terms "cold politeness," "affectation," hollow-heartedness." It should rather be designated by the terms "hypocrisy" and "deception," although the hypocrisy is generally apparent, and the deception rarely extends beyond the individual who attempts to practise it.

Culture, in the sense we would define it, includes not only the possession of knowledge, the expansion of the intellect, the development of the affections, and gracefulness and truthfulness of expression, but also their adjustments and proportions, the harmonious action of all the powers of the mind.

It is obvious from this view, that true culture is rather a permanent condition of the soul, than any specific passion or action of it; a refined and exalted spiritual state, into which the powers and susceptibilities of the mind are trained; a state in which the intellections, the emotions and graceful expressions are spontaneous, are as instinctive intuitions, in which right action is a habit, a second nature; a state in which rules and principles of action are absorbed or are no longer needed, because the soul rises above all mere rules and becomes a law unto itself. Such a refined and spiritual condition of the soul implies religious culture, the exercise of right affections toward God, and although this is not a direct object of school education, it is necessary to its highest perfection. The influence of the church and the school, of the minister and of the teacher, are combined and expressed in every soul which has attained the most perfect form of human culture.

The reason for making general culture rather than accurate and extensive knowledge of science or art the prominent object in the education of young ladies, is based upon the fact that they are to be the *refiners* of the race. They are fitted for this service by their physical and mental constitutions, by their moral and social instincts, and by the position which God has assigned them, a position where they must necessarily exert the first controlling and moulding influence in forming the character of society. The study of science is simply the instrument by which the object is gained, and the more extended and thorough it is the more certain the result.

The effects of such a culture are often experienced but are not easily described. Whoever has enjoyed the society of a cultivated and refined woman, has felt the power of this exalted condition of the soul. Her influence flows from every word and motion, it steals through the sensibilities as a mesmeric force, it attracts, and subdues, and purifies every mind which it reaches. Such a character tends to assimilate every thought and expression to its own most perfect form.

Such a culture it is the object of this institution to attempt, and if it shall not secure it in its highest fruition, it shall at least point out the way, and plant the germs of it in the minds of those who for any length of time come under its influence.

In securing this high state of culture it is obvious that the *means* must be adapted to the character of the service, and the nature of the mind. Education is not merely a process. It is not a routine, it is more. It is the growth of a spiritual, intelligent principle. It is not a growth by assimilation or accretion of foreign material, but of a living spiritual power, a growth from within outward. The mind is not a passive substance to be moulded like clay. It cannot be developed by chemical or mechanical processes. It is sensitive, self-active, self-willed. And as the teacher cannot impart capacity where it does not exist, so he cannot develop it where it does by his own single exertions. The work must be mutual, and hence, first of all, and preliminary to every other means of securing a high state of culture, we must excite in the mind of the pupil the love of knowledge, the desire of improvement, an affection for truth and goodness. Without these inward impulsive forces, education is indeed but a process, in which there may be much intelligence, extensive knowledge, correct and even graceful outward action, but there cannot be any true and generous culture. In such cases the termination of school instruction is the end of improvement. Books, by means of which we hold converse and communion with the great and good of all past ages, are soon discarded. Things temporary and trivial absorb the whole mind, and in a few years the man or the woman loses all knowledge of science or literature, all traces of culture. The immortal soul is thus made to retrograde on its course, simply because it was not early inspired with the love of knowledge, or impressed with a scholarly spirit. The means therefore which are employed in training the mind should be selected and applied with a view of inducing a love of study.

For this purpose the most effective means is the *personal influence* of the *teacher*. The value of this influence will be in proportion to the kind and degree of culture which the

teacher has attained, and the power which may thereby be exerted over the mind of the pupil. Personal influence depends more upon character than upon knowledge. The teacher, therefore, who has character united to a high state of culture, will infuse the spirit of study into the mind of the pupil. It is a law of our mental constitution to become assimilated to the character of those with whom we hold constant and intimate intercourse, and as this susceptibility is particularly strong in youth, the impress of the teacher's character is then most distinctly felt. He or she becomes the model, and the taught are moulded into the same image. In some cases this assimilating power is so great, that a knowledge of an individual indicates at once the institution where he received his education. His opinions, tones of voice, attitude and walk even, remind you of some distinguished master, who is thus distinctly set before you, and whose excellencies, and especially whose characteristic eccentricities, are reproduced and perpetuated in the character of his pupils.

Personal influence may arise from similarity of tastes, temperament, similar social and moral training; but, whenever it is possessed in its full force, it always has this characteristic element, a power of inspiring perfect confidence in the benevolence and integrity of the teacher, so that the mind of the pupil yields itself to and trusts in his judgment. In securing this conviction consists the true art of successful teaching. Little of value can be accomplished in any department of effort unless the action have in it a benevolent intention. In acquiring this personal power the teacher must have in his own soul an honest, earnest and benevolent purpose, and the faculty of exciting the conviction of it in the minds of those whom he attempts to instruct.

The waywardness, the restlessness, often the ill-nature of the young, tend naturally to act against the exercise of benevolent intention, and to produce a feeling of antagonism between the teacher and the taught. But so strong must this intention be, that it shall rise above and overpower all such influences. He has not the spirit of his calling, or the culture requisite to have the training of youth, who does not hold in his mind a strong, fixed, unshaken purpose of promoting the

present and future good of his pupils, whatever provocations to the contrary feeling may be presented, whatever ingratitude or perverseness he may witness; for if the wayward are ever to be reclaimed to the right, it will be through the influence of benevolent intention, and not by the exercise of a stern authority, or the exhibition of an irascible and impatient temper.

Connected with the personal influence of the teacher, another means of securing a high state of culture is to suggest the proper *motives* and *incentives* to study. These are the love of approbation, the love of distinction, the fear of discipline, the pleasure attending the acquisition of knowledge, the hope of being useful, and the convictions of duty. Perhaps the strongest of these in youth is the love of approbation, and it is this principle which is most frequently appealed to for the purpose of stimulating the mind in the pursuit of knowledge. This desire of approval is often so strong that it becomes a passion, and when united with the love of distinction, it overpowers all other motives, and renders the character thoroughly selfish. Truth and right will be sacrificed to obtain a momentary gratification. It is therefore a most dangerous principle to appeal to, and must be carefully directed. God has planted it in the soul, however, and when regulated and restrained by the moral powers, it contributes directly to form a lovable and agreeable character. We may therefore urge the young to be diligent and faithful in study, because thereby they will secure the approbation of the good. To be assured that their efforts to attain excellence are appreciated, is promotive of virtue, and encourages the mind in its practice.

The fear of discipline and the hope of reward are motives sometimes needed in the government of children, but they rank lowest and should seldom be resorted to. But the principal incentives to attain a high state of culture are appeals to the conscience, the pleasure consequent on successful acquisition, and the power which it furnishes for doing good. These motives should be so strongly pressed upon the mind, and made so prominent, as to overpower and render insignificant all others. It should be the grand effort of the teacher to lodge these motives in the mind. His success will

depend upon the degree in which he is influenced by them in his daily intercourse with his pupils. If these high motives prevail in his own soul, he will awaken them in others and call forth a corresponding action.

But the means most relied upon to secure a high state of culture, is a systematic course of study, adapting the different subjects, in time, matter and method, to the natural order in which the powers of the mind are unfolded. The design and comparative value of the several sciences as contributing to this end, deserve particular and extended consideration.

The branches of study pursued in our schools have three distinct uses.

First: As *aids* in the business of life, to enable the pupil to practise some art or perform some professional duty.

Second: As *instruments of culture*, in which case the particular applications of knowledge are of minor importance, and

Third: As *an incarnation* with the mind, that is, knowledge in the very act of expanding the powers of the mind becomes united to it, and remains as an organic living force, so that the mind is ever afterward other and different from what it would have been. As in matter two substances combine and produce a third, a new body, yet unlike material compounds, the elements of knowledge when combined with the human soul, cannot be abstracted from it, but become a part of its spiritual power.

The chief design of the study of the sciences is *discipline*, inasmuch as this secures what is most important in the other two. Their highest value, therefore, are as *instruments* to expand and strengthen the different powers of the mind.

Each faculty of the soul has its appropriate objects suited to its development. Each class of faculties have their proper branches of knowledge, between which there are natural affinities and adaptations the one to the other. The retention of knowledge is not essential to this instrumental effect, but if fully apprehended, and in proportion to the clearness with which it is received, will it become a component of the soul; although the mind may never be able to use it in its concrete form; although the individual may never be called upon to practise any of the arts founded upon it. The value of each branch, there-

fore, must be estimated by the kind and degree of discipline which it imparts, and the peculiar nature of the expansion and force which it infuses into the mind. In this view there is a comparative value. Some studies are better instruments than others, have a sharper edge, greater moulding power; but each has its own use and value, and each is indispensable to secure the balance and completeness of the character. The inquiry which is sometimes made, "Of what use will it be for my daughter to study geometry?" betrays an utter ignorance of the great objects of study, an entire misapprehension of the very foundation principles of human culture.

The multiplication of the branches of knowledge in schools is at least a less evil than is generally supposed. In many respects there is a positive gain, especially if the period of study may be thereby lengthened, for it is but increasing the instruments of culture by which our powers are more variously and fully developed. The doctrine, therefore, which some theorists have taught, that in the education of girls certain rather dry and difficult subjects should be wholly omitted, is founded upon a very limited and false view of the nature of mind, and of what is required for its right culture. The question, "Which better be omitted, the mathematics or the intellectual sciences?" is about as absurd as that so often discussed in village debating societies, "Which could we best dispense with, *fire* or *water*?" Now it would be easy to present arguments in favor of fire, and then again on the other hand in favor of water, but if either side were to attempt to practise in accordance with their arguments, they would be likely to find out the inconvenience, not to say the absurdity of their conclusions. A similar result might be anticipated from an attempt to practise this theory of omissions in the process of female education.

The truth is, each branch has its use, and each should be used. If important branches are left out of a course of study, the symmetry of the development, both of the mind and the character, will be marred; just as in the education of the other sex, if you find a professional man who has not received a classical education, has not been drilled and driven over a collegiate course of training, you will be likely to find a man

who has some defects, or excrescences, or eccentricities of character.

But in order to show the special design and value of the different branches of study, we must give them a more distinct examination.

I mention, first, the study of the natural world, and also class it with instruments of culture, because knowledge first comes through the senses. The mind must first be exercised in studying the forms and properties of those things by which it is immediately surrounded; and the pupil will make this knowledge, either voluntarily or instinctively, a most powerful means of preparing or unfitting the mind for the study of books. The child looks upon natural objects with the interest of novelty, and receives therefrom, at the most susceptible period, impressions which must influence the whole future of his being. He should therefore be taught to *observe*, to understand something of the language which is addressed to his quickened and expanding powers. He should be taught to observe with *accuracy*, that the habit of close attention, and a love for simple truth may be early and permanently fixed in his mind. He should be taught to discriminate and classify his knowledge; and, finally, he should have suggested to him the moral lessons which the works of God are fitted to teach. You are all familiar with the anecdote of the father of Washington, who surprised and instructed his son by so planting seeds, that when the plants sprung up they formed the letters of his name.

The knowledge gained at this period is the basis of much that we acquire in maturer life, and by the direction of a skillful teacher, and under the influence of correct habits of observation, simple nature may become a most powerful and valuable instrument in the culture of the mind.

The design of studying *languages* is twofold; first, as a medium of thought, and secondly, as a means of exercising and increasing the discriminating and comparing faculties. The study of words, like the study of things, habituates the mind to discern slight differences. Words are the raw material of thought; the instruments, excitants, suggestors, the body and permanent form of thought. Language is called

the clothing of the thought. The tendency of a careful study of languages is to a refinement of the ideas, and to a more felicitous selection and arrangement of words to express them. The mind finally becomes possessed with the power of language, and discerns the exact relation between any shade of thought and the words which should be selected to body it forth. The result is copiousness, variety and fullness in the expression. The most common thoughts put on freshness and life. They stand forth gracefully attired, in due proportions and in harmonious order.

The habit of composition, that is, the arrangement of words in sentences according to fixed laws, the discovery and application of which constitutes the science of grammar, brings into exercise more directly the faculties of analysis and of constructiveness. In this exercise the mind is compelled to give its attention to the meaning of words and to study their arrangement.

The translation of any foreign language into our own tongue has a similar effect: it gives the power to distinguish nice shades of thought in words, and suggests the most expressive mode of arrangement. By thus tracing the relations between thoughts and the symbols by which they are best expressed, we perform a constant process of judgment, so that the effect upon the mind is to fit it for the conduct of life, for forming just opinions upon the various subjects presented for its consideration. With the study of languages there should always be connected the study of English literature, of history and poetry.

It will be conceded generally that we should place the highest value upon the study of our own tongue, and that other languages should be acquired mainly with a view of obtaining a more extensive and exact knowledge of the English. It is too obvious to need proof, that our own should be the first language studied, both because it is to be the constant medium of thought, and because it is to be the language by which we think, and hence will call into exercise more than any other the perceptive and reflective intellect.

The Latin ranks next to the English, as an instrument of culture. Its structure is much more precise and systematic.

Its study contributes more directly to order and method. From it we derive a large portion of English words, besides most of the technical terms in the whole circle of the sciences. The almost numberless objects in Natural History are designated by Latin names. It is doubtful whether any thorough knowledge of the sciences, or of the English language itself, can be secured without some acquaintance with the Latin tongue.

Next to Latin we place French, then German and other modern languages. The Latin for mental discipline is far superior to French, superior to all the modern languages combined, and yet it cannot supply their place. The study of the French language is a necessity in the education of young ladies. Its principal use in a system of study is not, however, in being able to speak it, but in the influence exerted upon the mind by frequent translations into English. It is so dependent upon the Latin, that a good Latin scholar will very soon be able to read it, and then a residence for a few months in French society will give the power of speaking it. If your daughters were to live in France, and the French language were to be the medium of thought, then its study should precede the Latin. They should be placed in French schools and have a French education; but if they are to use the English language, and live mainly in English society, then the order of the languages in a system of education should be as we have indicated; English, Latin, French, and other modern languages.

In advocating the study of French as essential in the education of young ladies, I would at the same time protest against certain modern theories and modern practice in respect to its study. Because the French is a fashionable study there have arisen extreme and false views of its utility; and in too many cases, the influence of the French literature and fashions has acquired a ridiculous and pernicious ascendancy. It is obviously a false theory which would direct an English scholar to make French the principal study. It is clearly a mal-practice to set children to the study of French before they know any thing of the English. We know that the character of a people exerts a moulding influence upon their language, and, on

the contrary, the character of the language reacts and greatly influences the character of a people. If, therefore, instead of the strong, vigorous Englishwoman, into whose very being the language and literature of our Saxon tongue has become incarnated, you prefer that sentimental hybrid, a French lady ingrafted upon an English stock, then let your daughters, during their earlier years, be brought into contact with little else than French society, its fashions, its manners, its views of life, and its literature. I would not disparage this language or discourage its study; but by protesting against its abuse redeem it from reproach, and elevate it to its proper place. I would, if possible, expel from the mind of every young lady and every mother in the land, the silly idea that to obtain a little smattering of French is the chief end of woman.

The French is a graceful language, it offers great facilities for conversation. It is the language of compliment and of Courts, although it has no term to designate that familiar and most sacred place which we call home. And because it is smooth, and facile, and graceful, its study is suited to impart a certain polish and refinement to our stronger English character. Its acquisition is considered an accomplishment, and so it is in one view, and in this respect it is superior to Latin; but if your daughters begin their education with accomplishments, they will continue and end with accomplishments. The solid branches will be neglected, and in the end there will be little true refinement and polish of manners, because there will not be solid substance capable of receiving a polish. We shall, I fear, as we already have in some institutions, have French, painting, music, and dancing, as the chief instruments of culture. Our daughters will have an apparent grace of air and refinement of manners, and our granddaughters will have the good old English names of our mothers all terminating in *e*.

Such is the great fascination of this language that it should be specially guarded from perversion. We trust that its study will be universal, but with more correct views of its utility in the education of our daughters; that they will be taught, that it is one of its abuses, and not its legitimate use, to convert

Englishwomen into Frenchwomen; that it is a solid acquisition and also a delightful accomplishment, only when it is made to impart discipline and feminine grace to a truly English character. The German, in many respects, is superior to the French, and in some institutions its value is beginning to be appreciated.

The value of languages as instruments of culture, has not been properly estimated excepting in collegiate courses. They should receive more attention than is common in all our higher institutions. The time most favorable for the study of foreign languages is between the ages of ten and fifteen. This includes a period, during which the capacity of the mind is not equal to the higher English branches, and when the primary studies are usually nearly completed.

From the *mathematical sciences* I would select arithmetic, algebra, geometry, trigonometry, and mensuration, as most useful in a system of female education. Their design is chiefly for discipline, and for preparing the mind for the higher branches of philosophy and astronomy. Their study imparts definition and sharpness to the intellectual faculty, and thus prepares the mind to think with clearness, and to express thought in concise and accurate language; and not only this, but they give pertinacity and strength of grasp; they are the vices and screws of the intellectual apparatus, enabling the intellect to hold the subjects of thought distinctly before it, until all their relations are accurately surveyed. They teach what demonstration is, and habituate the mind to processes of perfect reasoning, processes depending upon intuitive evidence, and not upon any observations or judgments, into which some degree of uncertainty must always enter. The conclusions, and each step in the progress of an algebraic process or a geometrical demonstration, admit of no doubt or obscurity; the argument is always all on one side, so that the mind can exercise neither its discretion, or its judgment, or its will, but is carried forward to the conclusion by its own fixed and imperative laws.

Arithmetic and geometry I regard as of the highest value in the education of girls. And of arithmetics, Colburn's First Lessons ranks highest as an instrument of thought. It is

scarcely an exaggeration to affirm that this little book has produced already a revolution in the intellectual character of the age. I have little doubt but that the study of geometry has imparted to the female mind an intellectual vigor and power of reasoning which has more than doubled her influence in moulding the character of society.

Other views I know are prevalent in respect to the value of the exact sciences in the education of young ladies. Some would dispense with the higher branches altogether, as unsuited to the female mind, or as injurious to the character. Such a view I am persuaded never could have been derived from any careful induction of facts, but must have arisen either from ignorance, or from that vulgar prejudice that mathematical professors are very dry, uninteresting men, and therefore the study of these sciences must impart a cold, rigid stiffness to the character. This might be the effect if young ladies studied nothing else; but there is at the present day but little danger of such a result. Instead of any incongruity between the female mind and these sciences, their study is admirably fitted to supply what may be regarded as a defect. Women, it is said, never reason, but come to conclusions by instinctive intuitions. The study of the mathematics will supply this defect in logical power, and thus add greatly to the force of the female intellect. We would train our daughters to come to just conclusions, but we should have greater confidence in their judgments, if, in addition to their superior natural endowments, they possessed the power of assigning reasons therefor.

It is to be regretted, that any should embrace this prejudice, in respect to the study of the higher mathematics, because it is to be feared that some will seize upon it for the purpose of concealing their ignorance, and as an excuse for neglecting to acquire a solid and thorough education. These sciences arrest the progress of the superficial scholar and compel him to have definite views of subjects. They demand and secure thoroughness and completeness of knowledge. There is something very fascinating to a careless, indolent mind in having all subjects surrounded with a halo of glorious uncertainties, and something very forbidding in the stern, definite

demands of arithmetic and geometry. Such minds are willing to believe on mere authority that the sun is a very large body, and at a great distance from us, and that the stars are possibly suns; but have no taste for the definite, certain and beautiful process by which the human mind ascends to knowledge so wonderful, and to thoughts so vast.

That a low estimate is placed upon the exact sciences by some educators is shown by our own experience in this institution. It is a frequent complaint of parents when they present their daughters here, that they are deficient in mathematics; and in some few cases, we have actually had young ladies of seventeen reciting in the same class in arithmetic with children scarcely twelve years of age.

The next great use of the higher mathematics is, that this knowledge is essential to the successful study and comprehension of natural philosophy and astronomy. God governs the universe by mathematical laws, and for the clear understanding of those laws, for the study of that great revelation of God in the natural world, we would teach our daughters the higher mathematics, as a most desirable, and indispensable preparation.

There is one other important use of the exact sciences, which I am sure will commend their study to the approbation of mothers: their tendency to restrain the too great impulsiveness of the character at the age of about sixteen, and to prevent the young girl from precipitating herself too rashly and blindly into the forming of unsuitable connections in life. This proclivity to form concrete equations at that period, will be satisfied in a measure, if the mind is employed in solving those of a more abstract character contained in algebra. And all will agree with me, that it is vastly safer for a young lady to be demonstrating the abstract proposition of the right-angled triangle by means of paper diagrams, than to be practically measuring the hypotenuse thereof by means of a ladder from an upper window.

We come now to consider another class of instruments in the culture of the mind, *the natural sciences*, which differ essentially from the two preceding in the kind of discipline which they impart. We are introduced here to the relations

of *cause* and *effect*. We have to examine the agencies and powers which God employs in the government of the material universe, to classify phenomena, and deduce laws. In the languages and the mathematics the relations of cause and effect are not possible, for the reason, that we are not then examining agencies, living forces, but intuitions, truths, the forms of things. There is evidently no cause for the equality between the square of the hypotenuse of a right-angled triangle and the sum of the squares of the other two sides; there are no forces which can produce such a truth, its existence is in the very nature of things. The natural sciences therefore afford a kind of discipline peculiar to themselves. They address and exercise the faculties of comparison and causation. They give to the mind its philosophical character, as well as fit it for the right conduct of the affairs of life. They are necessary to teach the true methods of observation. The mathematics give us a true idea of demonstrative reasoning, the natural sciences of inductive and deductive processes. The former depend upon intuitive perceptions and definitions, the latter upon experiments, facts, observations, classifications, and generalizations. Their value, in a course of study, therefore, cannot be compared, because their effects are essentially diverse. Of the three departments of natural science, chemistry, natural philosophy, and natural history, natural philosophy, including astronomy, is the most valuable, because it promotes habits of close observation, and furnishes the best examples of the inductive process, by which the laws of matter have been so successfully educed. Natural history including the various *ologies* differs in the kind of discipline from the other two, in the fact, that, with the exception of one or two branches, as geology, we have little to do with the relations of cause and effect. Natural history exercises the historical and descriptive faculty.

The most valuable branches of natural history are physiology and geology, because the former makes us acquainted with our own organism, and the latter with that of the earth. Geology presents us with some of the most sublime views of the plans of God, it enlarges our ideas of time, as astronomy does of space.

The study of nature brings us into direct communion with the Infinite mind. It chastens the imagination, elevates and purifies the taste, and contributes eminently to simplicity and truthfulness of character. If you would turn away the young mind from the reading of fiction, and from revelling continually in imaginary scenes, bring it into communion with real existences, the wonders of nature, more truly wonderful and fascinating than any which the imagination can picture.

Aside from the enlargement of mind which the study of natural science secures, it opens up to the soul an almost infinite variety and richness of knowledge. It pours such healthful, such stimulating and elevating influences into the character that it cannot be but of the highest value in a system of education.

In the study of nature, we are separated from the depravities, the passions and the caprices of human society. Nature is soothing in all her influences, well fitted, therefore, to

“Minister to a mind diseased.”

For he who

“Communes with the forms
Of nature, who with understanding heart,
Doth know and love such objects as excite
No morbid passions, no disquietude,
No vengeance and no hatred, needs must feel
The joy of that pure principle of love
So deeply, that, unsatisfied with aught
Less pure and exquisite, he cannot choose
But seek for objects of a kindred love
In fellow natures and a kindred joy.”

Nay, more than this, here in these outer works of God he may be lifted upward above and beyond them, where there shall steal into his soul

“A sense sublime
Of something far more deeply interfused.”

* * * * *

“A motion and a spirit that impels
All thinking things, all objects of all thought,
And rolls through all things.”

The *metaphysical sciences*, intellectual and moral philosophy, logic, rhetoric, &c., differ from the preceding, inasmuch as they relate mainly to the powers, capacities and duties of the soul itself. The phenomena they investigate are within the mind. They call into exercise the reflective faculties more directly than any other class of studies. They not only investigate causes and effects, but reasons and their conclusions. Fully to master them requires more maturity of mind than for most of the others. They usually rank highest in value in systems of study, because they are essential to high mental discipline, and also because they, more than any other, directly influence the moral character. In this respect moral science is of the highest value, because it makes us acquainted with our relations to the moral universe. The discipline of the conscience is essential to the perfection of every other kind of discipline. Moral culture, I know, should begin with the first rudiments of knowledge, but when moral laws are made a special study, the mind becomes distinctly conscious of possessing this wonderful faculty of conscience, perceives its authority more clearly, and feels the obligations it suggests more deeply. When we have become *fully* conscious of the dignity of our moral nature, and begin to feel its impulsions to duty, we have attained to a high position in intellectual culture; we have solved the problem of life, for it is almost certain that our progress will be upward to the attainment of whatever can solidify the character, or adorn and beautify the soul. And this result will be better secured when we unite with the intellectual sciences evidences of natural and revealed religion, Butler's Analogy, and the higher branches of philosophy, literature and art.

The design and value of *accomplishments* in a well-directed course of study can only be alluded to. The modern languages are often included among the accomplishments of an education, and, in one view, they are such, as they impart a certain finish and grace to the mind, and tend to refine the character; but to speak or to read well in any foreign language is also a solid acquisition.

Dancing has also been so regarded, but this belongs to a different class of accomplishments, to physical education.

Dancing is an accomplishment in the same sense with any other gymnastic exercise. It does not pertain to the mind or character as such. We may speak of an accomplished dancer, and so we may of an accomplished boxer or wrestler or magician, but I protest against classing those things which display mere bodily agility, however desirable or important in their place, with the *accomplishments* of an education. The soul is spiritual and immortal, and is, therefore, infinitely superior to the body. Accomplishments contribute to its high and finished culture, to its adornment, and should not be associated with those acquisitions which pertain to the body alone. I would call dancing a *recreation*. Accomplishments as we would use the term, are nearly synonymous with the fine arts, and, as school studies, embrace music and painting. The capacity for a successful study of art is supposed to be a special gift, and hence when the faculty is wanting other studies should mainly supply the place. No doubt much time has been wasted upon music and painting, and yet whatever be the defect of capacity, some attention should be given to them, not for the sake of the acquisition itself, but for the influence of the culture which they promote. They address the imagination, they help form a correct taste, and impart to the soul a peculiar quality, a quickened and refined sensibility to the beautiful and the pure.

The study of art also disciplines the judgment, and adds gracefulness and finish to the whole character. It is the object of art to embody truth, to bring the mind into contact with the simple beauties of nature, and enable it to combine new forms, and create new beauties; its study, therefore, contributes to graceful and full expression. It belongs to the graces, the poetries of life. Accomplishments are the holiday attire of the soul, something of refinement added to the absolute necessities of being. Of themselves they are of little value, but when the study of nature, of languages, and mathematics, and of natural and intellectual sciences are united to and crowned by the study of art, then it is that accomplishments refine, elevate and purify the soul, as nothing else can. When underlaid with solid knowledge, they are to the female character as perfume to flowers perennially blooming,

and shedding their delightful fragrance all along the pathway of life.

When the love of study is established as an impulse in the soul; when to this is added a conscience sensitive to duty, a will obedient to law, a desire to benefit others with a thorough knowledge of science, literature and art, a high state of culture will be the necessary result, and in the end we shall have before us a noble, accomplished woman, fitted to fill the exalted station which God has assigned her in human society.

We have only time to notice a few of the *obstacles* which the teacher must meet in attempting to secure this high state of culture. The task would be a difficult one were there no opposing forces; but we have to deal with temperaments too indolent and temperaments too active, to contend with caprices, with habits of inattention, of self-indulgence, of superficial study; habits of carelessness with respect to order and neatness, habits in fine, of disobedience to the law of conscience, resulting in deception, or want of integrity. Home influences sometimes oppose an almost insuperable barrier to a high state of culture. The weakness, partiality, or capriciousness of parental government, or defective family arrangements in respect to time, induce a want of promptness, and this leads to other and greater irregularities and deficiencies. The practice of withdrawing the children for a portion of the year, discourages the teacher, diminishes his revenue, while it imposes the necessity of greater effort to supply the loss to the pupil.

But the principal obstacles arise from the limited and erroneous views of the nature and value of a good education, and of the time requisite to secure it. This is emphatically a material age, boast of it as we may. The almost miraculous power of steam, electricity and mechanism, annihilating time and space, and multiplying material products, has naturally given rise to the idea that the education of the mind may be accomplished by mechanical and labor-saving agencies. Every writer, every orator refers to the wonderful advances made in educational processes, and hence Institutions of learning are apt to be regarded in the same light with steamboats, which have only to be furnished with proper material arrangements, and supplied with skilful captains, and young ladies can be put on board

and carried through in the shortest time ; or rather as factories, which, with well-arranged mechanism, will turn them out with the proper make and finish. The pupil has the idea that the mechanism is to do all the work ; she is simply to be the recipient of an external power, and her mind thoroughly furnished, after the most approved models, without any special effort of her own. All the thinking is to be done by the teacher. Those who have prepared the text-books have so simplified knowledge, have presented it in such small fragments, that little effort is required to understand all that is needed for a fashionable education. The learner obtains a few ideas which lie upon the outskirts of any branch of knowledge, but does not penetrate to the centre, comprehend and master it, and yet believes because she has finished the book, she has exhausted the subject. While those branches of knowledge which cannot be thus degraded, are too frequently regarded as unsuited to the female mind, or discarded as too dry, abstract, and impracticable for the present age.

In accordance with this material and mechanical tendency, greater value is placed upon the body, its pleasure and adornment, than upon the culture and well-being of the soul. That which is to perish is cherished with more solicitous care, has lavished upon it greater expense, is beheld with higher swelling pride than that which is spiritual and eternal, and upon whose right culture are suspended the hopes and destinies of immortality. What can be more incongruous than the sight of an ornately dressed young girl with a neglected, unfinished, uncultured mind ?

In consequence, too, of the disproportionate value placed upon wealth, social distinction, dress, external grace and ornament, there arises a strong desire among young ladies in cities to finish their school studies at too early an age, before even the mind has attained sufficient maturity to receive the benefit of any extensive and well-arranged system of study, and this desire is greatly fostered by the customs of society. If it be true that "there are no boys now-a-days," it is also true that there are few girls. The transition from the nursery to society is sudden and without any intermediate stages and gradations. The little Miss, before she is in her teens, must be called a young

lady, and she must therefore have the prerogatives and privileges: she must make and receive calls, attend parties, see all the sights, hear all the celebrated singers and actors, assume the airs, and receive the attentions of a young lady.

The introduction to society requires neither age nor accomplishments; and the result is, that in too many cases the susceptible mind of youth is deflected and drawn away by so many external influences, by parties, and balls, and beaux, that it is well nigh impossible to fix the attention *long enough* upon study to secure a large and generous culture. There is not excitement enough in study to satisfy the heated and jaded powers. The sources of gratification are all exhausted and dried up, and the body as well as the mind made prematurely old, before the period arrives when they are capable of appreciating and enjoying the pleasures of society, or fitted to add to it the dignity and grace of fresh, well-developed, womanly characters. It was a conceit of Carlyle, I believe, that "boys should be caged till they were twenty-one;" we would be more lenient with the girls, and only require that they be housed until they are eighteen.

I fancy that it is due to this material, money-getting tendency, that there results so low a standard of education in the community. It is difficult to raise the standard in the schools, for the spirit, the opinions, the general tone of society will be felt here, and, where examples of a liberal culture are few, the young mind is slow to gain an idea or an appreciation of any higher standard than commonly prevails. The educator, therefore, finds it an arduous labor to inspire his pupils with an ambition to rise above these influences, and to gain broader and higher views of the objects and ends of study, and he is tempted to give up the contest and yield to a pressure which he finds it impossible to sustain or resist. I know of nothing which would tend more directly to counteract these tendencies, and to elevate the standard of education in all our schools in this city so much, as a well endowed university, which should collect around it a society of literary and scientific men. From such a society there would be diffused the spirit of culture. We should be embosomed in an atmosphere which would act as a constant tonic, an exhilarating force, bearing us upward

and onward to a higher intellectual, social, and moral condition, and aiding us to prepare and send forth from this and other institutions here, educated young ladies who would infuse the spirit of a liberal culture through the family circles, and the social gatherings, and who would become shining examples of accomplished and cultivated women.

But without this influence to aid us, it should be distinctly stated as a ground of high hope, that the standard of female education is much higher in our community than it was but a few years since; and we are encouraged to believe that the object of study will be better understood, the value of culture more highly appreciated, the means more efficient, and the obstacles less formidable, as we are brought more completely under the influence of the institutions of science and of religion which are already so firmly established in our beautiful city.

I may be allowed in conclusion to congratulate the young ladies of this institution, for the commendable progress they have made the past year toward attaining that high culture which I have attempted to describe, and for resisting to so large an extent the obstacles to its successful completion. It is but just and proper for me to say to you, that in an experience of more than twenty years in different institutions, I have never seen such perfect order, and such entire devotion to study, as I have witnessed here during the year which is now hastening to its close. I feel bound to say this in this public way, not to flatter you, but to express my own gratitude and that of my associates, that you have made our labors here so light and pleasant, and to encourage you in maintaining that high character which you have thus acquired.

I trust you will bear in mind the great object of your school education, as you now lay aside the instruments of culture, so far as they are contained in books, and go forth to enjoy a season of rest and recreation; and that you will look constantly into that other book written by the finger of God, and allow its great thoughts, its noble lessons, its high inspirations, to exert their moulding influence upon your hearts, so that we may meet you at the commencement of another year, invigorated in health, filled with stronger and firmer

resolutions to reach a higher standard of excellence, and imbued with a deeper sense of your obligations to God.

But there are some of your number who are to leave us not to return. In your behalf, and on the part of the teachers, and Board of Visitors, I must say to them a few parting words, and express to them our congratulations and our regrets.

My beloved pupils, I have already detained you and our friends here too long, but I confess a reluctance to approach this hour, and to stand so near the line which must separate us from each other. Our congratulations, therefore, that you have so honorably completed the course of study here, are mingled with deep and sincere regrets. That to which you have looked forward with such ardent desire and joyous hope, must sever the tie which has so strongly bound us together, and yet, it is not quite severed; the golden chain which unites the teacher and the pupil can never be parted. The bond is strong as affection, it is spiritual, and therefore immortal.

The past has been to me the busiest, and one of the happiest years of my life. I attribute no small part of this happiness to the genial influences which you have thrown around me, as from day to day I have mingled with you, and as I have striven, with what ability God has given me, to imbue your minds with the love of study and the love of truth. I attribute a portion of this happiness also to the fact that the year has been full of pleasant work, and in taking leave of you to-night, I can urge upon your attention no higher duty than that of going forth into life with the full purpose of filling it with earnest, efficient labor, for I can point you to no high honor, or great influence, or pure happiness which can be secured without attempting some good and noble work.

I will not flatter you, at this hour, by telling you that you have already attained that high state of culture to which it is your privilege and duty to aspire; but I trust you have the true *ideal* of it. You have been made acquainted with the elements of knowledge, with the proper incentives to study; you have been taught something of the power of the various sciences; lay them not aside, as you leave these halls; you have but begun to know their use and to feel their influence. Let them still be your daily companions.

It is true, you have attained a distinction far above most of your sex. Few are privileged to pass through a course of study as extended as yours has been; few have the means of so much influence for good as you will possess. We part with you, therefore, with high hopes that you will diffuse around you, in the spheres you may be called to fill in life, the spirit of a liberal and Christian culture. As you go forth to fulfil the mission God has assigned you, remember that there are but two objects worth living for here; the one is to cultivate your spiritual natures and the other to apply all your knowledge and all your culture to the temporal, comfort and spiritual improvement of those who may come under your influence.

We earnestly desire your happiness, but we are not alone in this, you are, and will be connected by many social and natural affinities with others who will sorrow or rejoice with you, and whose welfare will be bound up with your own. But if you make happiness the object of your efforts in life, she will surely elude your search. Happiness comes unsolicited, unsought, to those only who in the fear and love of God strive to benefit and impart happiness to others. Let all your aims have a benevolent intention, remembering that you were not sent here to be happy merely, but to be useful. Society needs elevated, benevolent Christian women. It has a work for you to perform; embrace the opportunity joyfully, and by the blessing of God you shall be happy in the present life, and in coming times your names shall be associated with that great company of noble women who, ascending to their reward, have ceased from their labors while their works have followed them.

Before taking leave of you, it becomes my pleasing duty to present you with the testimonials to your scientific and literary attainments, the customary honors of this institution, and conferred only upon those who have honorably sustained their examination in the prescribed course of study.

With these we offer you our hearty congratulations, we welcome you to a participation in the honors, the privileges, the sympathies of educated, cultured minds.

As you separate from us, and from each other; as these

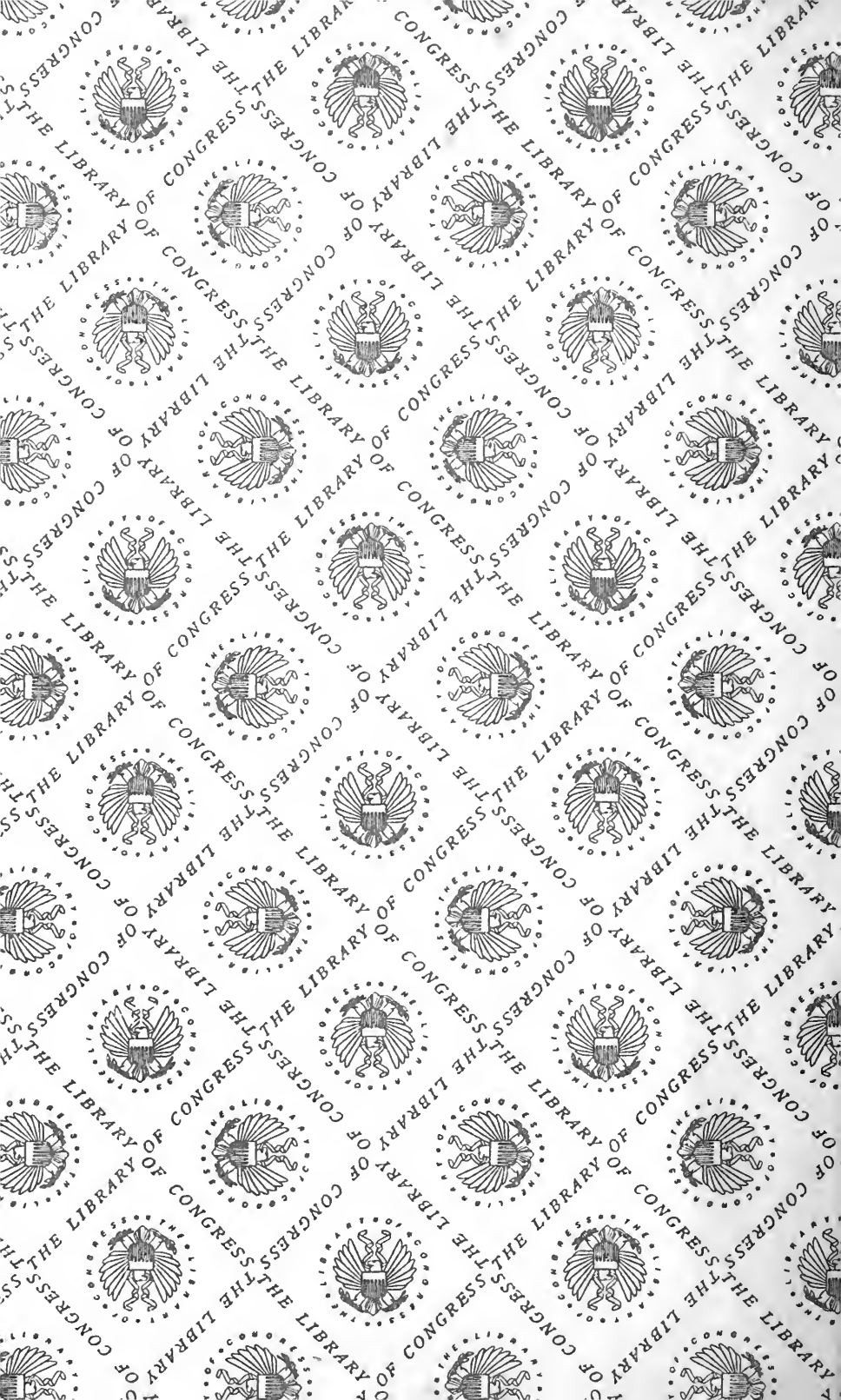
scenes, now so joyous and full of hope, recede from your view, we trust they will serve to recall early friendships, to awaken pleasant memories, that will gladden life's sadder hours, and cast a serener joy over its brighter days. We hope you will make them as monitors and incentives to a higher spiritual life.

But we must bid you *farewell*, for we know that there are many hearts pulsating towards you, and many hands beckoning you away, to the broad prairies of the West, to the edges of the lakes, to the rocky shores of the East, and to consecrated hearths in our own midst. Whatever hearts you may gladden, whatever homes you may bless, we trust you will not forget, that learning, and honors, and friendships, should all be made subservient to the interests of that immortal future, for whose inconceivable joys the education and discipline of the present life are but a necessary and fit preparation. Go, each to your appointed work, and patiently wait for that blessed reunion, where those who have striven here to do the will of God, may recount their triumphs; where teachers and pupils may study together the sublime science of heaven, and be separated no more.

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